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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,184	05/22/2006	Donald Walter Bartch	PU030305	3793
24498	7590	12/10/2008		
Joseph J. Laks			EXAMINER	
Thomson Licensing LLC			WON, BUMSUK	
2 Independence Way, Patent Operations				
PO Box 5312			ART UNIT	
PRINCETON, NJ 08543			2889	
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			PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/580,184

**Applicant(s)**

BARTCH ET AL.

**Examiner**

BUMSUK WON

**Art Unit**

2889

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3 and 9 is/are rejected.  
7) ☒ Claim(s) 4-8 and 10 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 5/22/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 10 is objected to because of the following informalities: The first group of materials are separated by ";" (semicolons); while the second group of materials are separated by "," (commas). The examiner suggests using either semicolon or commas consistently. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bae (US 6,356,012) in view of Deyama (US 4,760,310) which is cited in the IDS, in further view of Ihara (US 5,942,358).

Regarding claim 1, Bae discloses a method of manufacturing a method of manufacturing a CRT (figure 1) comprising the steps of: providing an envelope (2) with an interior surface (inside 2) and an exterior surface (outside 2), said envelope including a faceplate (4) having a luminescent screen (14) on said interior surface thereof, a neck (8) for supporting an electron gun (10), a funnel (12) connecting said neck and said faceplate.

Bae does not specifically disclose flowcoating a flowcoating formulation on a portion of said interior surface of said funnel and on an interior portion of said neck, said

flowcoating formulation comprises metal oxide, graphite, a silicate, a copolymer, surfactant and water; drying said flowcoating formulation on said portion of said interior surface of said funnel and on said interior portion of said neck, thereby forming a conductive coating; and sealing a mount containing said electron gun to said neck, said electron gun having an anode in electrical contact with said conductive coating.

Deyama discloses a method of manufacturing a method of manufacturing a CRT (figure 1) including steps of flowcoating a flowcoating formulation (5) on a portion of an interior surface (not referenced) of a funnel (6) and on an interior portion of a neck (1), said flowcoating formulation comprises metal oxide (column 2, line 37), graphite (lines 36-37), a silicate (column 3, line 6), surfactant (column 2, lines 37-38) and water (column 3, line 13); drying (line 14) said flowcoating formulation (5) on said portion of said interior surface of said funnel and on said interior portion of said neck, thereby forming a conductive coating (5, column 3, line 1); and sealing a mount (not referenced) containing an electron gun (7) to said neck, said electron gun having an anode (not referenced) in electrical contact with said conductive coating (5) (the anode and conductive coating are electrically connected via contactor 8), for the purpose of reducing internal sparking of CRT.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have flowcoating a flowcoating formulation on a portion of an interior surface of a funnel and on an interior portion of a neck, said flowcoating formulation comprises metal oxide, graphite, a silicate, surfactant and water; drying said flowcoating formulation on said portion of said interior surface of said funnel and on said

interior portion of said neck, thereby forming a conductive coating; and sealing a mount containing an electron gun to said neck, said electron gun having an anode in electrical contact with said conductive coating as disclosed by Deyama in the method disclosed by Bae, for the purpose of reducing internal sparking of CRT.

Bae in view of Deyama does not disclose the flowcoating formulation includes a copolymer.

Ihara discloses a method of manufacturing a method of manufacturing a CRT (column 1, lines 7-10) including a coating formulation with copolymer (column 3, lines 4-13), for the purpose of improving surface quality and control of viscosity of the coating.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a coating formulation with copolymer in the method disclosed by Bae in view of Deyama, for the purpose of improving surface quality and control of viscosity of the coating.

Regarding claim 2, Ihara discloses the copolymer is a maleic copolymer (column 3, lines 4-13). The reason for combining is same as claim 1.

Regarding claim 3, Deyama discloses the metal oxide is iron oxide or titanium dioxide (column 1, line 34). The reason for combining is same as claim 1.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deyama (US 4,760,310) which is cited in the IDS in view of Ihara (US 5,942,358).

Regarding claim 9, Deyama discloses a formulation for flowcoating comprising metal oxide (column 2, line 37), graphite (lines 36-37), a silicate (column 3, line 6), surfactant (column 2, lines 37-38) and water (column 3, line 13).

Deyama does not specifically disclose having a copolymer.

Ihara discloses a coating formulation with copolymer (column 3, lines 4-13), for the purpose of improving surface quality and control of viscosity of the coating.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a coating formulation with copolymer in the formulation disclosed by Deyama, for the purpose of improving surface quality of the coating.

***Allowable Subject Matter***

Claims 4-8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, the prior art of record does not teach or suggest the invention of a method of manufacturing a CRT wherein a copolymer is at 1-5 weight percent and a metal oxide at 9-22 weight percent, along with other claimed limitations. Claims 5 and 6 are objected to due to claim dependency.

Regarding claim 7, the prior art of record does not teach or suggest the invention of a method of manufacturing a CRT wherein a flowcoating formulation is formed by diluting a concentrated formulation including: a graphite at 4-7 wt %; iron oxide as the metal oxide being at 9-22 wt. %; maleic copolymer at the copolymer at 1-5 wt. %; caustic material at 1-6 wt. %; potassium silicate as the silicate at 27-46 wt. %; the

surfactant at 1-5 wt. %; and water at 20-54 wt. %, along with other claimed limitations.

Claim 8 is objected to due to claim dependency.

Regarding claim 10, the prior art of record does not teach or suggest the invention of a formulation for flowcoating comprising: graphite at 4-7 wt. %; metal oxide at 9-22 wt. %; copolymer at 1-5 wt. %; caustic material at 1-6 wt. %; silicate at 27-46 wt. %; surfactant at 1-5 wt. %; and water at 20-54 wt. %; or a dispersion in diluted form comprising graphite at 2.8-6.65 wt. %, metal oxide at 6.3-20.9 wt. %, copolymer at 0.7-4.75 wt. %, caustic material at 0.7-5.7 wt. %, silicate at 18.943.7 wt. %, surfactant at 0.35-4.75 wt. %, and water at 21-70.2 wt. %, along with other claimed limitations.

### ***Conclusion***

Deyama discloses a flowcoating formulation which has 10-22 wt. % graphite, 30-50 wt. % metal oxide, 2-9 wt. % surfactant, and 25-42 wt. % silicate. However, Deyama does not specifically disclose or suggest the formulation having a copolymer is at 1-5 weight percent and a metal oxide at 9-22 weight percent; graphite at 4-7 wt. %, metal oxide at 9-22 wt. %, copolymer at 1-5 wt. %, caustic material at 1-6 wt. %, silicate at 27-46 wt. %, surfactant at 1-5 wt. %, and water at 20-54 wt. %; or a dispersion in diluted form comprising graphite at 2.8-6.65 wt. %, metal oxide at 6.3-20.9 wt. %, copolymer at 0.7-4.75 wt. %, caustic material at 0.7-5.7 wt. %, silicate at 18.943.7 wt. %, surfactant at 0.35-4.75 wt. %, and water at 21-70.2 wt. %.

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BUMSUK WON whose telephone number is (571)272-2713. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on 571-272-2713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. W./  
Examiner, Art Unit 2889

/Toan Ton/  
Supervisory Patent Examiner  
Art Unit 2889